OPERATION/PROGRAMMING

Spectra III™ SE Series

Models DD53M22 & DD53M22-X

C2443M-D (11/05)

OPERATION/PROGRAMMING MANUAL

MODELS DD53M22 & DD53M22-X

22X LowLight™ MONOCHROME TECHNOLOGY

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Thank you for purchasing Pelco's premier integrated dome system, Spectra III SE. Your new system features a high resolution, monochrome camera with programmable dome drive software.

This manual is designed to be a reference tool for the operation and programming of your system. Inside you will find information about Spectra III SE's features and commands, as well as a detailed menu tree.

Getting Started

You will need to install your dome system before using this manual. Refer to the installation packet supplied with the back box for installation instructions.

Once installed apply power to the Spectra III SE dome system. The system will start a configuration sequence. When configuration is done, the following information is displayed:

Pelco Spectra III SE
*Version X.XX
D Address: 1
P Address: 2
Comm 2400, N, 8, 1

CONFIGURE DONE

This information will remain on the monitor until dome operation begins.

Refer to the following pages to learn how to operate and program your dome system.

* Pressurized Spectra III SE dome systems require software version 1.25 or higher to monitor temperature, pressure, and dew point.

HOW TO OPERATE YOUR DOME SYSTEM

Operation	How to Control
Pan and Tilt	Move joystick or press the direction keys left/right and up/down.
Zoom Far	To zoom far, do the following: 1. Press the Zoom Tele button or turn the joystick clockwise until zoom stops at the **32X zoom limit**. 2. Release the button or joystick for one second. 3. To continue zooming (digitally), press the button or turn the joystick clockwise again until you have the picture you want or reach the **digital zoom[1] limit**.
Zoom Wide	Press the Zoom Wide button or turn the joystick counterclockwise.
Scanning	
Stop Scan	Preset 96
Random Scan	Preset 97
Frame Scan	Preset 98
Auto Scan	Preset 99
Presets	Refer to the documentation supplied with the control system.
Patterns[2]	Refer to the documentation supplied with the control system.
Zones	Refer to the *Zones* section and to the documentation supplied with the control system.
Alarms	Refer to the *Alarms* section in this manual.
Auto Flip	Turn on or off in the programming menu. Refer to the *Auto Flip* section in this manual.

[1] Digital zoom magnifies the image electronically and the picture may appear pixilated. The larger the digital zoom limit the greater the reduction in resolution.

[2] The dome cannot do digital zoom in a pattern. Optical zoom will operate in a pattern.

Accessing Main Menu (Preset 95)

You can call up the main menu on your monitor by programming (setting or creating) preset 95 (preset 28 if in AD32-preset mode).

Programming preset 95 for Pelco's controllers varies according to the type of controller you are using. Instructions for programming preset 95 are given below for various Pelco controllers.

CM6700/CM6800

1. Enter the number of the Spectra dome system and press the CAM key.
2. Enter 95 and hold the PRESET key for two seconds.
3. In the Edit Preset menu, arrow to SET and press the ACK key. The main menu appears.

KBD200A/KBD300A (Direct Mode Only)

1. Enter 95.
2. Hold the PRESET key (approximately five seconds) until the main menu appears on the screen.

CM9500

1. Enter the number of the Spectra dome system and press the CAM key. The Main menu appears.
2. Highlight SETUP in the Main menu and press the SELECT key.
3. Highlight CAM in the Setup menu and press the SELECT key.
4. Highlight PRESET in the Camera menu and press the SELECT key.
5. Enter 95 and press the F1 key. The main menu appears.

CM9740/CM9760/CM9770/CM9780

1. Press the ESCAPE key to open the Main menu. Select DEF. The Define Submenu appears.
2. Enter your four-digit PIN *if this is your first time entering this mode.*
3. Enter 95 and select PRST. The main menu appears on the monitor.
4. Select the Quit icon to return to the default menu.

(Continued on next page)

KBD4000/KBD4002

1. Press the SPOT MONITOR key.
2. Enter 95, then hold the PRESET key (approximately five seconds) until the main menu appears on the screen.

MPT9500

Standard Coaxitron Mode

1. Enter 95 and press the PRESET SET key.
2. Position the asterisk in the YES row and press the F1 key. The main menu appears.

Extended Coaxitron or RS-485 Mode

1. Enter 95 and press the PRESET SET key.
2. Press the F2 key. The main menu appears.

NET300/NET350/NET4001A

1. Check the Set box.
2. Click the preset 95 button. The main menu appears.

WS5050

1. Right-click in the video pane of the Spectra dome system.
2. Click Preset and then click Select Preset.
3. Enter 95 and then click OK.

VCD5000

1. Enter 95 for the preset action. The shortcuts menu appears.
2. Press the Preset button on the KBD5000.

Presets

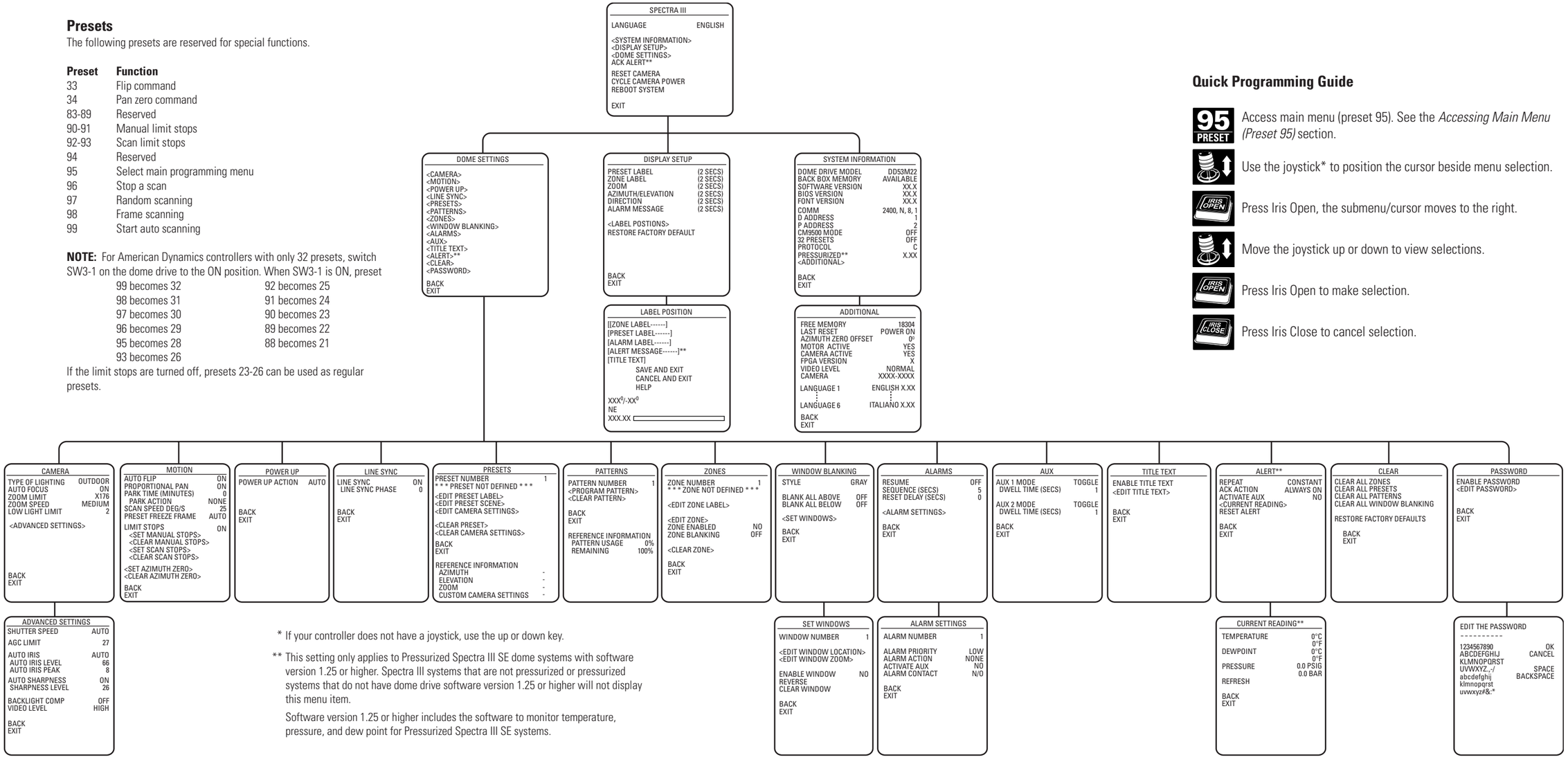
The following presets are reserved for special functions.

Preset	Function
33	Flip command
34	Pan zero command
83-89	Reserved
90-91	Manual limit stops
92-93	Scan limit stops
94	Reserved
95	Select main programming menu
96	Stop a scan
97	Random scanning
98	Frame scanning
99	Start auto scanning

NOTE: For American Dynamics controllers with only 32 presets, switch SW3-1 on the dome drive to the ON position. When SW3-1 is ON, preset

99 becomes 32	92 becomes 25
98 becomes 31	91 becomes 24
97 becomes 30	90 becomes 23
96 becomes 29	89 becomes 22
95 becomes 28	88 becomes 21
93 becomes 26	

If the limit stops are turned off, presets 23-26 can be used as regular presets.



* If your controller does not have a joystick, use the up or down key.

** This setting only applies to Pressurized Spectra III SE dome systems with software version 1.25 or higher. Spectra III systems that are not pressurized or pressurized systems that do not have dome drive software version 1.25 or higher will not display this menu item.

Software version 1.25 or higher includes the software to monitor temperature, pressure, and dew point for Pressurized Spectra III SE systems.

Quick Programming Guide

Access main menu (preset 95). See the *Accessing Main Menu (Preset 95)* section.

Use the joystick* to position the cursor beside menu selection.

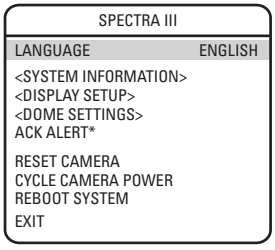
Press Iris Open, the submenu/cursor moves to the right.

Move the joystick up or down to view selections.

Press Iris Open to make selection.

Press Iris Close to cancel selection.

LANGUAGE



* This setting only applies to Pressurized Spectra III SE dome systems with software version 1.25 or higher.

The language for the on-screen menus is selectable. Available languages include English, Spanish, French, German, Italian, Portuguese, Russian, Polish, Turkish, and Czechoslovakian. The factory default language is English.

NOTE: The dome system cannot store all 10 languages in its memory. There are two language packages available. The standard language package includes English, Spanish, Portuguese, Italian, French, and German. The alternate package includes English, Russian, Polish, Turkish, and Czechoslovakian. If your dome system does not have the language package that you require, you must upload the other language package. Refer to the *Software/Language File Upload* section.

To change the display language:

1. Use the joystick to position the cursor beside LANGUAGE.
2. Press Iris Open. The cursor moves to the right, beside the current, selected language.
3. Move the joystick up or down to view selections. Press Iris Open to enter selection.

   All on-screen menus are changed to the selected language.

Quick Programming Guide

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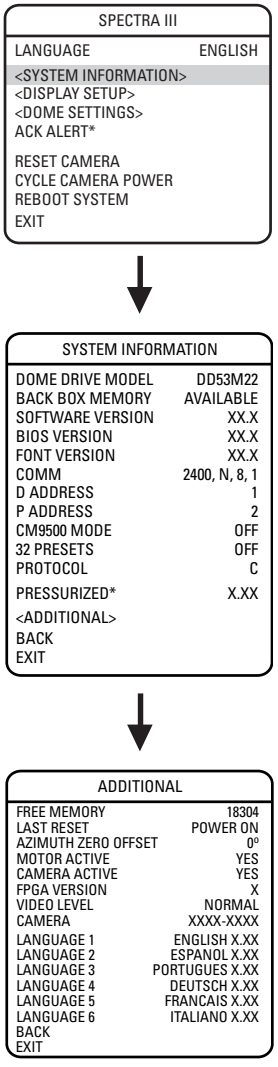
SYSTEM INFORMATION



* This setting only applies to Pressurized Spectra III SE dome systems with software version 1.25 or higher.

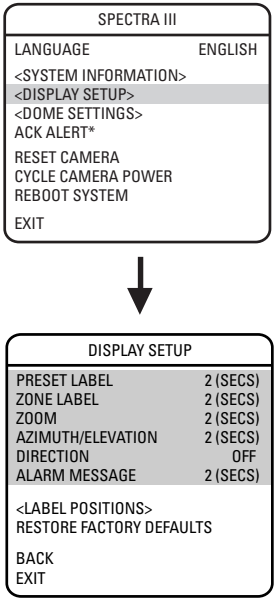
The system Information screen displays dome drive model, software version, available memory, and other diagnostic information.

System settings cannot be changed using this screen. This screen is for reference only.

Use the following steps to display the System Information screen:

1. Use the joystick to position the cursor beside SYSTEM INFORMATION.
2. Press Iris Open. The SYSTEM INFORMATION window opens.

DISPLAY SETUP



*This setting only applies to Pressurized Spectra III SE dome systems with software version 1.25 or higher.

Display setup allows you to program how labels are displayed on the monitor. The following labels are available:

PRESET LABEL:	Identifies preset.
ZONE LABEL:	Identifies zone.
ZOOM RATIO:	Identifies the amount of magnification.
AZIMUTH[1]/ELEVATION[2]:	Amount of pan from 0° and the amount of tilt from 0° horizontal.
DIRECTION;	Displays compass direction.
ALARM MESSAGE:	Displays activated alarm.

A preset label is displayed when a preset is called. A zone label is displayed when the system moves into a zone. The zoom ratio label is displayed when zoom is activated. Azimuth/elevation and direction labels are displayed when pan/tilt is activated. An alarm message appears on the monitor when an alarm occurs.

The following settings are available for each label:

OFF:	Label is not displayed when activated.
CONSTANT:	The label is continually displayed when activated.
2 SECONDS:	The label is displayed for 2 seconds after activation.
5 SECONDS:	The label is displayed for 5 seconds after activation.
10 SECONDS;	The label is displayed for 10 seconds after activation.

[1] Azimuth is the pan angle from 0° to 359°.
[2] Elevation is the tilt position from 0° (horizon) to -90°.

Quick Programming Guide

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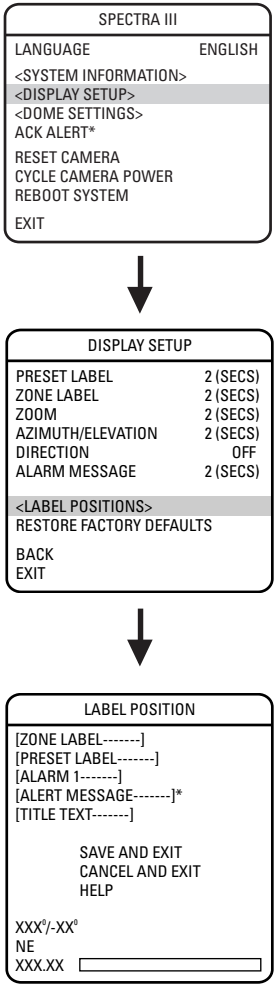
Label Position



* This setting only applies to Pressurized Spectra III SE dome systems with software version 1.25 or higher.

Labels can be placed anywhere on the monitor. This feature allows you to customize the appearance of your monitor screen.

The following labels are not set at fixed positions:

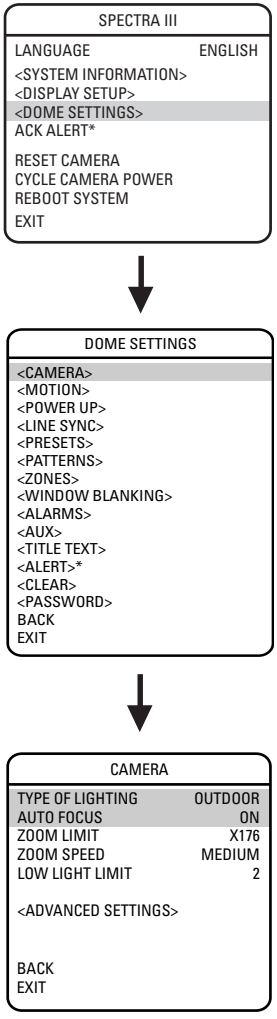
- PRESET LABEL
- ZONE LABEL
- ALARM 1
- ZOOM RATIO - XXX.XX
- AZIMUTH[1]/ELEVATION[2] - XXX°/-XX°
- DIRECTION - NE
- ALERT MESSAGE[3]*
- TITLE TEXT

To set a label position:

1. Use the joystick to position the cursor beside a label.
2. Press Iris Open.
3. Use the joystick to move the label up, down, left, and/or right.
4. Press Iris Open.
5. Repeat steps 1 through 4 to position other labels.
6. Position the cursor next to Save and Exit. Press Iris Open to save settings and exit menu.

[1] Azimuth is the pan angle from 0° to 359°.
[2] Elevation is the tilt position from 0° (horizon) to -90°.
[3] The alert message is the warning displayed on the monitor if pressure, temperature, or dew point inside the dome reach unacceptable levels.

Camera



*This setting only applies to Pressurized Spectra III SE dome systems with software version 1.25 or higher.

TYPE OF LIGHTING

Pelco has calibrated settings that optimize the picture for indoor and outdoor lighting conditions. There are two settings:

OUTDOOR (default)

INDOOR

AUTO FOCUS

Auto focus allows the lens to remain in focus during zoom-in, zoom-out, and motion functions.

There are two auto focus settings:

ON (default)	If auto focus mode is set to ON, the camera will focus automatically when using pan, tilt, and zoom functions.
OFF	Focus is operated manually. To focus, press the Focus Far or Focus Near button on the controller.

Quick Programming Guide

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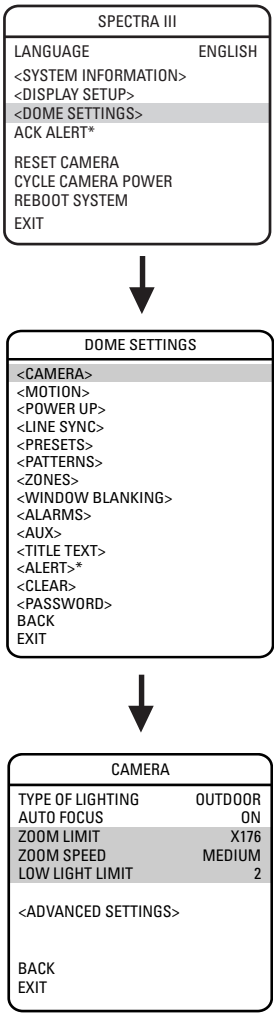


* This setting only applies to Pressurized Spectra III SE dome systems with software version 1.25 or higher.

ZOOM LIMIT

Zoom limit allows the user to define a limitation on the amount of telephoto zoom. The default setting is 176X.

Cameras with 264X zoom (22X optical zoom and 12X digital zoom) can be set for 22X, 32X, 88X, 176X, 220X, or 264X.

ZOOM SPEED

Zoom Speed allows the user to define how fast the dome will go from full wide zoom to the 22X optical zoom. The default setting is MEDIUM.

Available settings for zoom speed include the following:

HIGH	2.4 seconds
MEDIUM (default)	3.9 seconds
LOW	6.3 seconds

NOTE: When using the HIGH setting, the image may be out of focus until zooming stops.

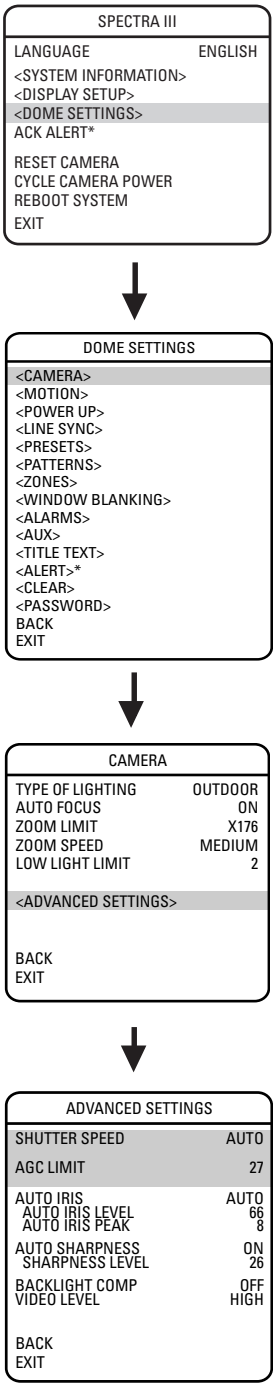
LOW LIGHT LIMIT

Low light limit is the maximum duration, in fractions of a second, that the electronic shutter will remain open in low light conditions. The default setting is 2.

Settings include the following:

2 =1/2 second	8 = 1/8 second	30 =1/30 second
4 = 1/4 second	15 =1/15 second	60 =1/60 second

Advanced Camera Settings



SHUTTER SPEED

Shutter speed is the duration of the electronic shutter. Program shutter speed to operate automatically (Auto) or manually (Numeric Value).

AUTO (default)	The electronic shutter speed is set automatically by the amount of light sensed by the camera.
NUMERIC VALUE	Spectra III SE dome system has several numerical shutter speed settings. The higher the number, the faster the electronic shutter. The slowest shutter speed setting is 2 = 1/2 second The fastest setting is 30,000 = 1/30,000 second Increasing the shutter speed lowers the light sensitivity and reduces the streaking of fast moving objects.

NOTE: Set the shutter speed to 100 if you are using an NTSC camera in a 50 Hz environment. This will eliminate any flicker that may occur in the picture.

AGC LIMIT

AGC Limit allows users to adjust how the system balances AGC (automatic gain control) and electronic shutter in low light conditions. As scene lighting decreases, the system will automatically adjust, adding a mixture of AGC and slow shutter according to the AGC LIMIT setting. AGC LIMIT can be set between 0 and 40, with 40 applying maximum AGC before slow shutter. In contrast, setting AGC LIMIT to 0 will force the system software to apply maximum slow shutter (as defined by the LOW LIGHT LIMIT setting) before any AGC is applied. The default setting of 28 sets the AGC and slow shutter balance to favor AGC, yielding more real-time low light images.

NOTE: The maximum slow shutter that the system will achieve is 1/2 second shutter (refer to the *Low Light Limit* section).

*This setting only applies to Pressurized Spectra III SE dome systems with software version 1.25 or higher.

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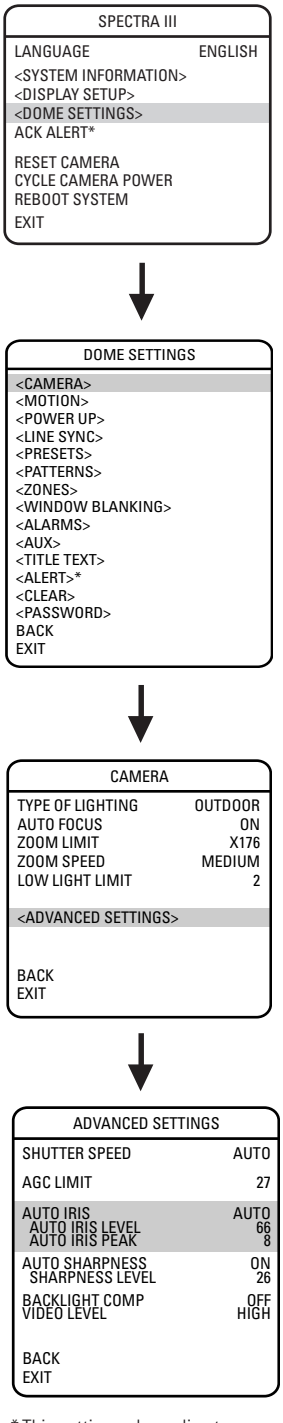


* This setting only applies to Pressurized Spectra III SE dome systems with software version 1.25 or higher.

AUTO IRIS

Auto iris is the lens function that automatically opens and closes the iris in response to changing light conditions.

Program the auto iris to operate automatically or at a user-defined level.

OFF	Auto iris is disabled, and control is always manual.
AUTO (default)	The iris is adjusted automatically to produce a constant video output as determined by the Auto Iris Level setting.

NOTE: If auto iris is in the auto mode, it will remain that way until the iris is manually opened or closed. The dome will return to auto mode when it is panned or tilted more than 15 degrees.

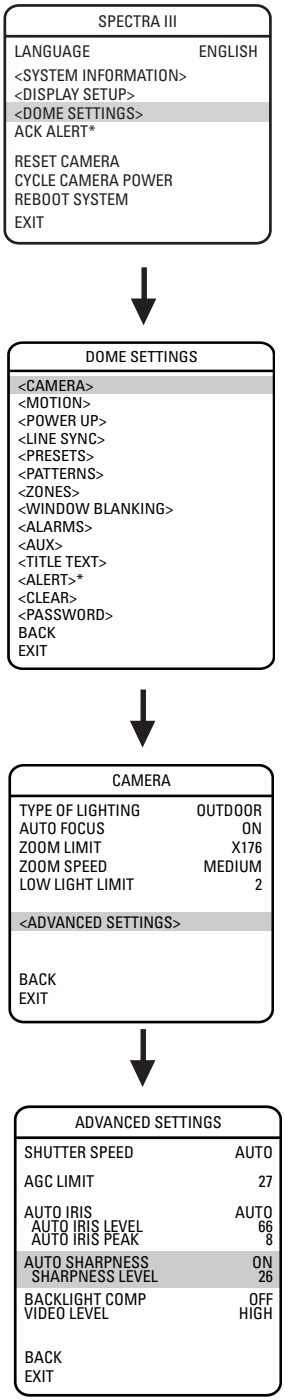
Auto Iris Level

Auto Iris Level is the numeric value the auto iris uses to maintain the brightness level of the camera. Increase the value to brighten the scene. Decrease the level to darken the scene. This setting can be adjusted if the video level in the auto iris mode is too bright or too dark.

NOTE: If backlight compensation is ON, decrease the Auto Iris Level setting.

Auto Iris Peak

Increasing the peak value will cause the auto iris circuit to react more to highlights or “peaks” in the picture. Decreasing this value will cause it to use the average video level to adjust the iris.



* This setting only applies to Pressurized Spectra III SE dome systems with software version 1.25 or higher.

AUTO SHARPNESS

Auto sharpness enhances picture detail by increasing the aperture gain of the camera and sharpening the edges in the picture.

There are two settings:

ON (default)	The camera automatically maintains a normal sharpness mode.
OFF	The sharpness of the picture is set manually by programming the SHARPNESS LEVEL. Sharpness level settings range from 0-31.

Quick Programming Guide

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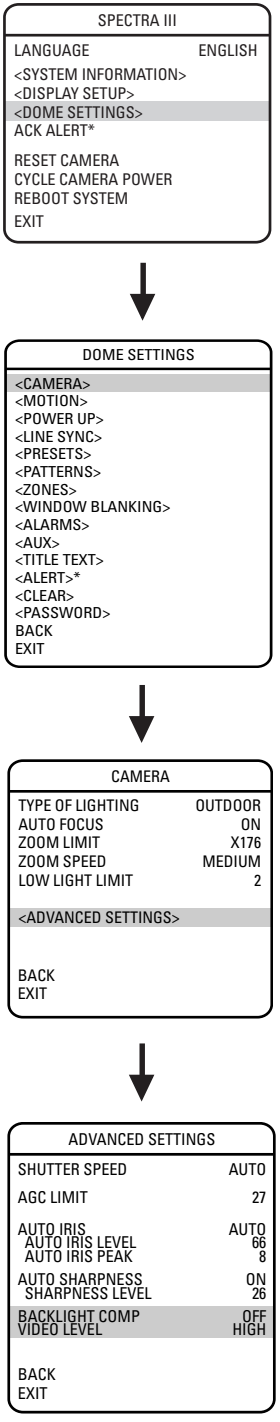


* This setting only applies to Pressurized Spectra III SE dome systems with software version 1.25 or higher.

BACKLIGHT COMPENSATION (BLC)

If a bright backlight is present, the subjects in the picture may appear dark or as a silhouette. Backlight compensation enhances objects in the center of the picture. The dome uses the center of the picture to adjust the iris. If there is a bright light source outside of this area, it will wash out to white. The camera will adjust the iris so that the object in the sensitive area is properly exposed.

There are two backlight compensation settings:

ON	Backlight compensation is activated.
OFF (default	Backlight compensation is not activated.

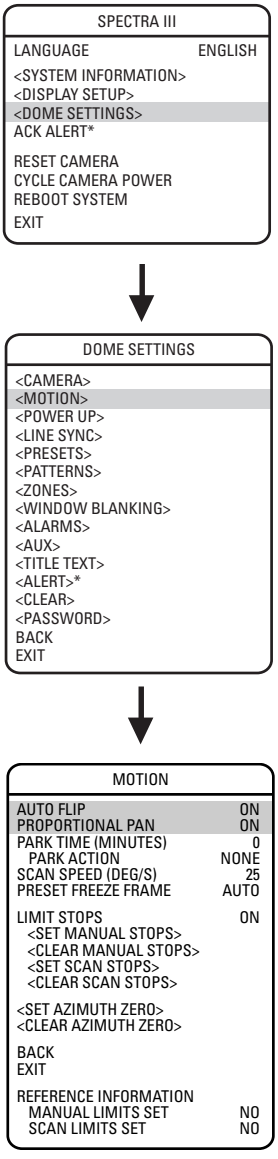
NOTE: If backlight compensation is ON, decrease the Auto Iris setting. Refer to the *Auto Iris* section.

VIDEO LEVEL

Set the video output to one of the following:

NORMAL	1.0 volt peak-to-peak
HIGH (default setting)	1.2 volt peak-to-peak to compensate for losses in video cable.

Motion Settings



*This setting only applies to Pressurized Spectra III SE dome systems with software version 1.25 or higher.

AUTO FLIP

When the camera tilts downward and goes just beyond the vertical position, the dome rotates 180 degrees. When the dome rotates (flips), the camera starts moving upward as long as you continue to hold the joystick in the down position. Once you let go of the joystick after the dome rotates, joystick control returns to normal operation. The auto-flip feature is useful for following a person who passes directly beneath the dome.

There are two auto flip modes:

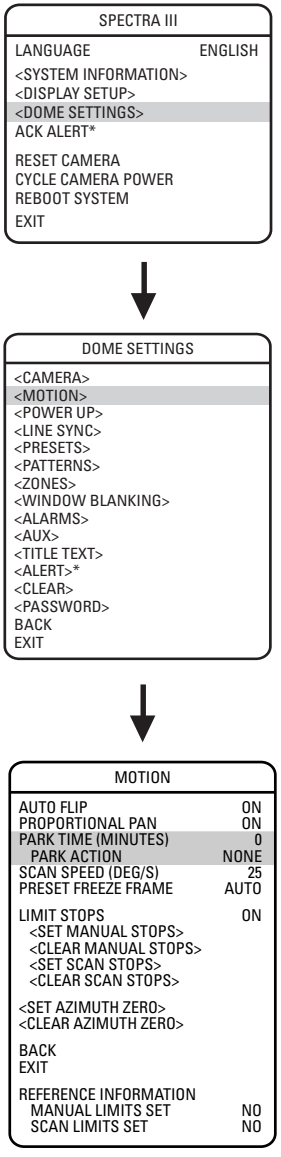
ON (default)	Auto flip mode is enabled.
OFF	Auto flip mode is disabled.

PROPORTIONAL PAN

Proportional pan automatically reduces or increases the pan and tilt speeds in proportion to the amount of zoom. At telephoto zoom settings, the pan and tilt speeds will be slower for a given amount of joystick deflection than at wide zoom settings. This keeps the image from moving too fast on the monitor when there is a large amount of zoom.

There are two proportional pan modes:

ON (default)	Enables the proportional pan mode.
OFF	Disables proportional pan mode. The pan speed will not depend on the amount of zoom.



*This setting only applies to Pressurized Spectra III SE dome systems with software version 1.25 or higher.

PARK TIME

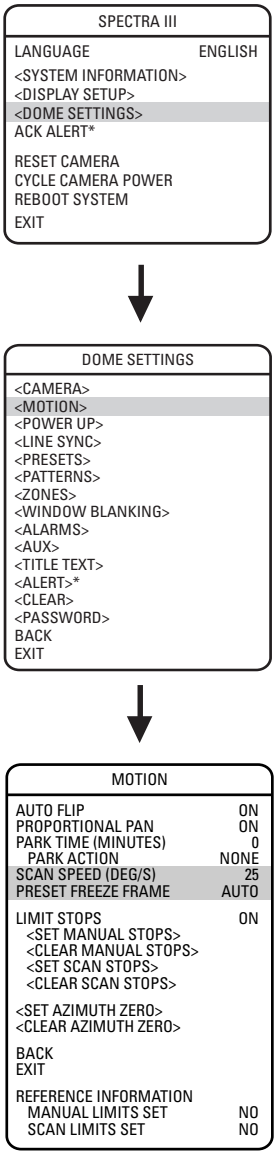
This feature allows the dome to begin a specified operation (scan, preset, or pattern) after a programmed time of inactivity.

Park time can be programmed from 1 minute to 720 minutes (12 hours), or set to zero, which disables this feature. The default setting is zero.

Park Action

This feature will define the activity when the dome parks. The following settings are available:

NONE (default)	No action.
AUTO SCAN	Dome starts auto scan operation.
RANDOM SCAN	Dome starts random scan operation.
FRAME SCAN	Dome starts frame scan operation.
PRESET 1	Dome goes to preset 1.
PRESET 8	Dome goes to preset 8.
PATTERN 1	Dome runs pattern 1.
PATTERN 2	Dome runs pattern 2.
PATTERN 3	Dome runs pattern 3.
PATTERN 4	Dome runs pattern 4.



*This setting only applies to Pressurized Spectra III SE dome systems with software version 1.25 or higher.

SCAN SPEED

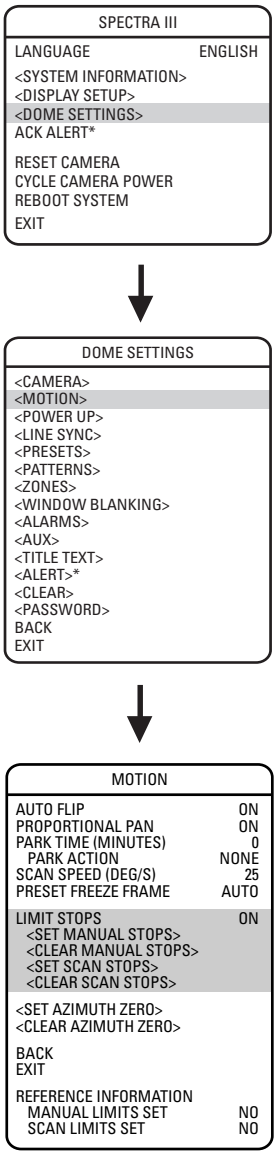
Scan speed is the degrees per second that the dome will pan when in a scan mode. Scan speed is adjustable from 1 to 40 degrees per second through the programming menu. The default setting is 25 degrees per second.

PRESET FREEZE FRAME

This feature freezes the scene on the monitor when going to a preset. This allows for smooth transition from one preset scene to another. Preset freeze frame also reduces bandwidth when used with digital network systems such as PelcoNet™ and guarantees that blanked areas will not be revealed when going to a preset.

There are three preset freeze frame settings:

ON	The image on the screen freezes when a preset is called. When the dome reaches the preset, the image is unfrozen and the preset scene is displayed.
OFF	The image is never frozen.
AUTO (default)	Freeze frame is turned on automatically if window blanking is ON. If window blanking is OFF, freeze frame is off.



* This setting only applies to Pressurized Spectra III SE dome systems with software version 1.25 or higher.

LIMIT STOPS

Limit stops are programmable stops that limit the pan range of the dome. There must be two limits, a left and a right, to define an area.

There are two types of limit stops:

MANUAL	A manual (joystick) pan operation stops when a limit stop is reached.
SCAN	The dome reverses direction during random, frame, or auto scanning when a limit stop is reached.

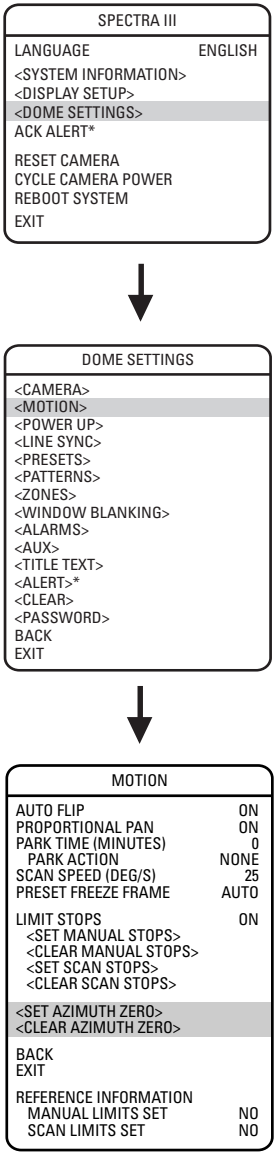
To set manual or scan stops:

1. Use the joystick to position the cursor beside SET MANUAL STOPS or SET SCAN STOPS.
2. Press Iris Open.
3. Follow the directions displayed on the monitor.

NOTE: In order for the manual or scan stops to work, the LIMIT STOPS setting must be ON.

To clear manual or scan stops:

1. Use the joystick to position the cursor beside CLEAR MANUAL STOPS or CLEAR SCAN STOPS.
2. Press Iris Open.
3. Follow the directions displayed on the monitor.



*This setting only applies to Pressurized Spectra III SE dome systems with software version 1.25 or higher.

AZIMUTH ZERO

Azimuth is the pan angle from 0° to 359°. Azimuth zero is the pan position you specify to be the 0° point. Azimuth zero is normally set to magnetic north. Once set, azimuth and compass readings are based on the set Azimuth Zero point.

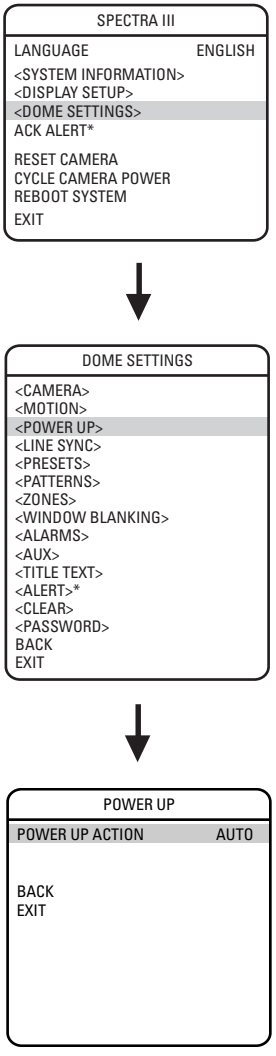
To program azimuth zero:

1. Use the joystick to position the cursor beside SET AZIMUTH ZERO.
2. Press Iris Open.
3. Follow the directions displayed on the monitor.

To clear azimuth zero:

1. Use the joystick to position the cursor beside CLEAR AZIMUTH ZERO.
2. Press Iris Open.
3. Follow the directions displayed on the monitor.

Power Up



* This setting only applies to Pressurized Spectra III SE dome systems with software version 1.25 or higher.

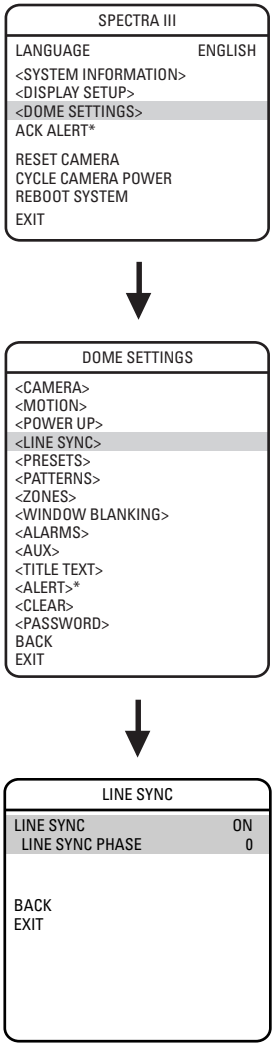
POWER UP ACTION

This setting defines a specific activity (scan, preset, pattern) to be performed in the event the power to the dome is cycled.

The following settings are available:

NONE	No action.
AUTO (default)	The dome resumes its prior activity or direction before the power outage.
AUTO SCAN	Dome starts auto scan operation.
RANDOM SCAN	Dome starts random scan operation.
FRAME SCAN	Dome starts frame scan operation.
PRESET 1	Dome goes to preset 1.
PRESET 8	Dome goes to preset 8.
PATTERN 1	Dome runs pattern 1.
PATTERN 2	Dome runs pattern 2.
PATTERN 3	Dome runs pattern 3.
PATTERN 4	Dome runs pattern 4.

Line Sync



*This setting only applies to Pressurized Spectra III SE dome systems with software version 1.25 or higher.

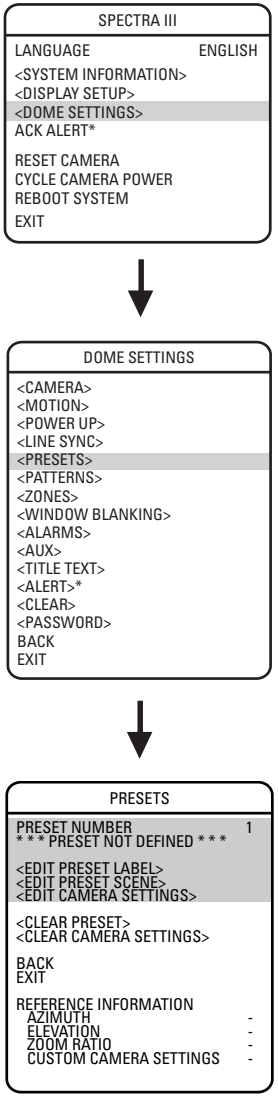
Line sync refers to a programmable function that allows you to synchronize all cameras within a matrix system.

NOTE: Spectra III SE automatically senses V-sync input. No line sync setup is required for Pelco control systems that provide a V-sync signal.

For matrix systems that do not output V-sync, there are two settings for line synchronization:

ON (default)	Adjusts the phase of the line sync to synchronize input power. LINE SYNC PHASE settings range from 0-359 degrees.
OFF	The dome synchronizes to an internal clock.

Presets



* This setting only applies to Pressurized Spectra III SE dome systems with software version 1.25 or higher.

The Spectra III SE dome system has 150 preset positions. Each of the user-definable presets can be programmed to use pan, tilt, camera settings, and motion detection. The programmable presets are numbered 1-32, 35-82, and 100-150.

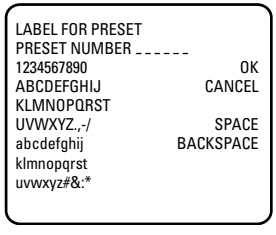
The following presets are predefined for specific functions:

Preset	Action
33	Flip command. Pans the dome drive 180 degrees.
34	Pan zero command. Directs the dome drive to the factory-determined zero reference point.
83-89	Reserved.
90-91	Manual limit stops.
92-93	Scan limit stops.
94	Reserved.
95	Select main programming menu.
96	Stop a scan.
97	Random scanning.
98	Frame scanning.
99	Start auto scanning.

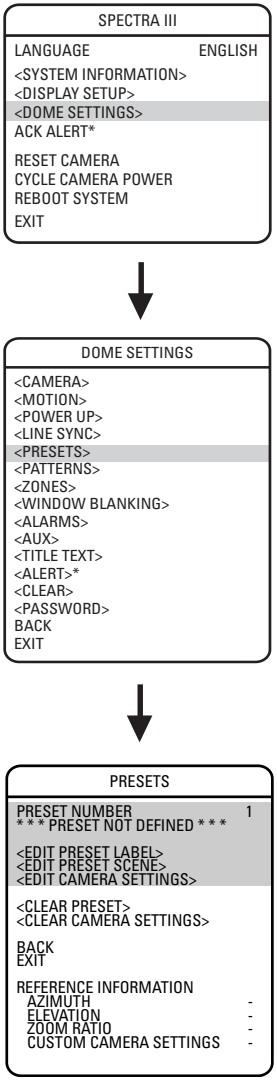
Use the following steps to program a preset.

1. Select the preset number:
   a. Use the joystick to position the cursor beside PRESET NUMBER. Press Iris Open. The cursor moves to the right.
   b. Move the joystick up or down to view selections. Press Iris Open to enter selection.

2. Edit the preset label:
   a. Use the joystick to position the cursor beside EDIT PRESET LABEL.
   b. Press Iris Open. The following appears on the monitor:



   c. Use the joystick to position the cursor beside a character. Press Iris Open to enter selection. To clear a character, position the cursor beside BACKSPACE, and then press Iris Open.
   d. When label is completed, move the cursor to OK. Press Iris Open to return to the Preset menu.



*This setting only applies to Pressurized Spectra III SE dome systems with software version 1.25 or higher.

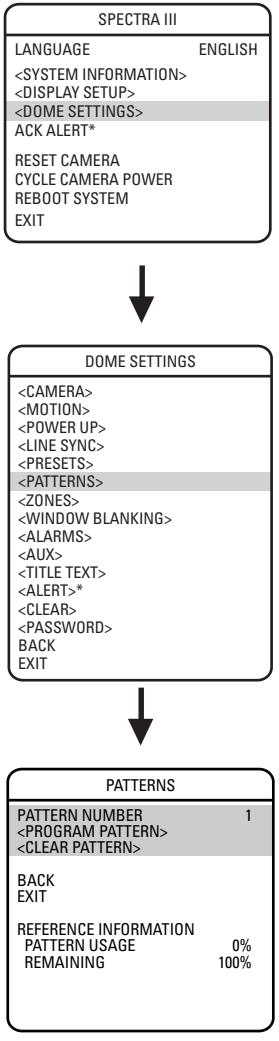
3. Edit the preset scene:
   a. Use the joystick to position the cursor beside EDIT PRESET SCENE.
   b. Press Iris Open.
   c. Follow the directions displayed on the monitor.

4. Edit preset camera settings:
   a. Use the joystick to position the cursor beside EDIT CAMERA SETTINGS.
   b. Press Iris Open. The EDIT CAMERA SETTINGS window appears on the monitor. Refer to the *Camera* and *Advanced Camera Settings* sections of this manual to change preset camera settings.

NOTE: You can copy camera settings from one preset to another preset. To copy camera settings do the following:

1. Use the joystick to position the cursor beside COPY CAMERA SETTINGS.
2. Press Iris Open. The cursor moves to the right.
3. Move the joystick up or down to view selections. Press Iris Open to enter selection.

Patterns



* This setting only applies to Pressurized Spectra III SE dome systems with software version 1.25 or higher.

A pattern is a memorized, repeating, series of pan, tilt, zoom and preset functions that can be recalled with a command from a controller or automatically by a programmed function (alarm, park or power-up).

The Spectra III SE can handle up to four user-defined patterns. Pattern length is based upon memory usage rather than a fixed amount of time. The complexity of a pattern will determine the amount of storage available to program other patterns.

To program a pattern:

1. Use the joystick to position the cursor beside PATTERN NUMBER. Press Iris Open. The cursor moves to the right.
2. Move the joystick up or down to view selections. Press Iris Open to enter selection.
3. Use the joystick to position the cursor beside PROGRAM PATTERN.
4. Press Iris Open. The Patterns programming window appears on the monitor.
5. Follow the directions displayed on the monitor.

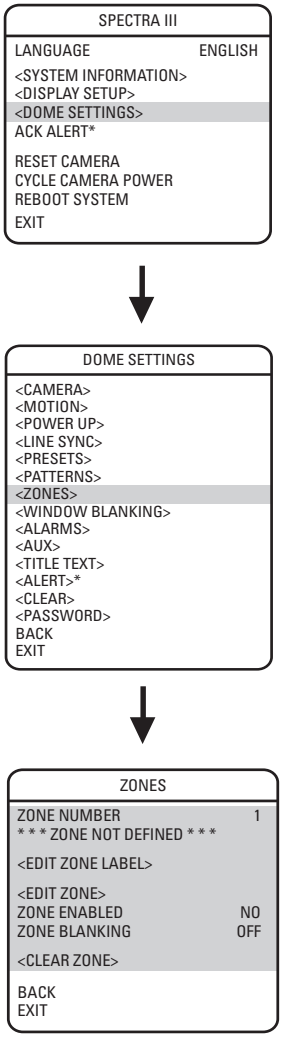
After a pattern is programmed, the remaining storage percentage is displayed on the screen. This is the amount of memory available to program the remaining patterns.

To clear a pattern:

1. Use the joystick to position the cursor beside CLEAR PATTERN.
2. Press Iris Open.
3. Follow the directions displayed on the monitor.

NOTE: When programming one or more presets within a pattern, use the normal controller commands to Call a Preset. Not all controllers can start all four patterns. However, any of the four patterns can be automatically started with park, power-up, and alarm functions.

Zones



* This setting only applies to Pressurized Spectra III SE dome systems with software version 1.25 or higher.

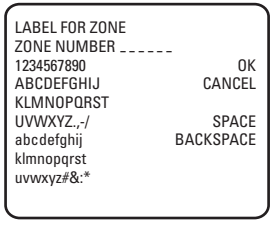
A zone is a pan area, defined by a left and right limit, on the 360-degree pan plane. The Spectra dome system is capable of eight zones, each with a 20-character label.

To program a zone:

1. Use the joystick to position the cursor beside ZONE NUMBER. Press Iris Open the cursor moves to the right.
2. Move the joystick up or down to view selections. Press Iris Open to enter selection.
3. Use the joystick to position the cursor beside EDIT ZONE.
4. Press Iris Open. The Zone programming window appears on the monitor.
5. Follow the directions displayed on the monitor. After the left and right limit stops are set, the Zones menu reappears with the ZONE ENABLED option set to YES.

To edit a zone label:

1. Use the joystick to position the cursor beside EDIT ZONE LABEL.
2. Press Iris Open. The following appears on the monitor:



3. Use the joystick to position the cursor beside a character. Press Iris Open to enter selection. To clear a character, position the cursor beside BACKSPACE, and then press Iris Open.
4. When the label is completed, move the cursor the OK. Press Iris Open to return to the Zones menu.

To disable a zone (a zone is enabled automatically when it is programmed) or to blank a zone:

1. Move the cursor beside ZONE ENABLED or ZONE BLANKING.
2. Press Iris Open. The cursor moves to the right.
3. Move the joystick up or down to view selections. Press Iris Open to enter selection.

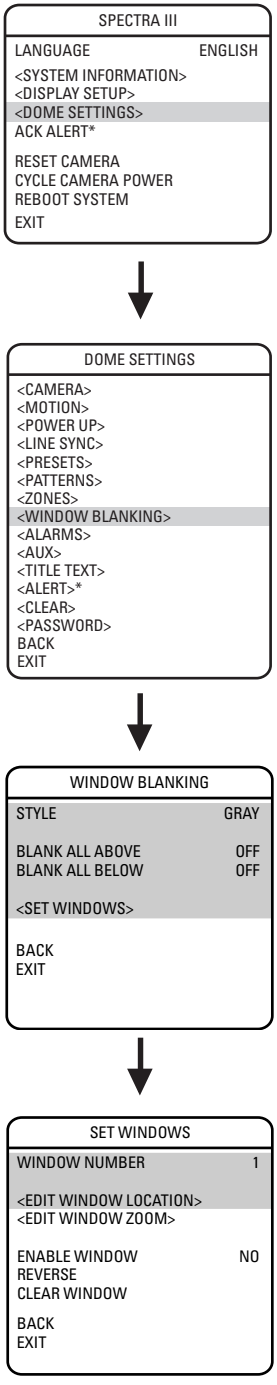
To clear a zone:

1. Use the joystick to position the cursor beside CLEAR ZONE.
2. Press Iris Open. Follow the instructions on the screen.

Quick Programming Guide

(See page 11)

Window Blanking



* This setting only applies to Pressurized Spectra III SE dome systems with software version 1.25 or higher.

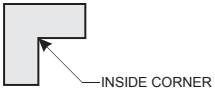
Window blanking allows a user to program up to eight, four-sided, user-defined areas that cannot be viewed by the operator of the dome system. A blanked area will move with pan and tilt functions and automatically adjust in size as the lens zooms telephoto and wide.

Spectra III SE has two style modes for window blanking, GRAY and SMEAR. If style is set to gray, the blanked area is covered with a solid gray window. If smear is selected images behind the window will be noticeable but not distinguishable.

To set a window blanking area:

1. Use the joystick to position the cursor beside WINDOW BLANKING. Press Iris Open. The WINDOW BLANKING menu appears on the screen.
2. Move the joystick to position the cursor beside SET WINDOWS. Press Iris Open to enter.
3. Position the cursor beside WINDOW NUMBER. Press Iris Open. The cursor moves to the right.
4. Move the joystick up or down to view selections. Press Iris Open to enter selection.
5. Use the joystick to position the cursor beside EDIT WINDOW LOCATION. Press Iris Open, and then follow the instructions that appear on the screen. When all four corners are set, the SET WINDOWS menu reappears, the blanked area is displayed, and the ENABLE WINDOW option is set to YES.

NOTE: Use the inside corner of the window selection tool as a guide when selecting the upper left, upper right, bottom right, and bottom left corners of the window. Set windows are not visible when editing a new window location.



SPECTRA III

LANGUAGE ENGLISH
<SYSTEM INFORMATION>
<DISPLAY SETUP>
<DOME SETTINGS>
ACK ALERT*

RESET CAMERA
CYCLE CAMERA POWER
REBOOT SYSTEM

EXIT

DOME SETTINGS

<CAMERA>
<MOTION>
<POWER UP>
<LINE SYNC>
<PRESETS>
<PATTERNS>
<ZONES>
<WINDOW BLANKING>
<ALARMS>
<AUX>
<TITLE TEXT>
<ALERT>*
<CLEAR>
<PASSWORD>
BACK
EXIT

WINDOW BLANKING

STYLE GRAY

BLANK ALL ABOVE OFF
BLANK ALL BELOW OFF

<SET WINDOWS>

BACK
EXIT

SET WINDOWS

WINDOW NUMBER 1

<EDIT WINDOW LOCATION>
<EDIT WINDOW ZOOM>

ENABLE WINDOW NO
REVERSE
CLEAR WINDOW

BACK
EXIT

* This setting only applies to Pressurized Spectra III SE dome systems with software version 1.25 or higher.

6. The blanked area can be programmed to turn on or off at a specified zoom point. To set the zoom point:
   a. Use the joystick to position the cursor beside EDIT WINDOW ZOOM, and then pres Iris Open.
   b. Zoom in to the point where you want window blanking to turn on. Press Iris Open to set the zoom point.

NOTE: Since the area is already blanked out, it may be difficult to determine when you want window blanking to turn on. Reverse the window before setting the zoom point. When finished reverse the window again to blank out the area.

Window Blanking Disabled

Window Blanking Enabled

NOTE: Increase the size of the window if any part of the blanked area is revealed during pan, tilt, and zoom operations.

Quick Programming Guide

(See page 11)

REVERSE

A blanked out area can be reversed to make it visible and the areas on both sides of it not visible. The areas above and below the blanking area remain visible. Reversing the window a second time will return it to its original condition.

CLEAR WINDOW

All areas that have been set for window blanking are cleared.

BLANK ALL ABOVE/BLANK ALL BELOW

Blank All Above and Blank All Below add additional flexibility to setting up privacy areas. These settings are ideal for applications where a complete pan location needs to be blanked.

Blank All Above

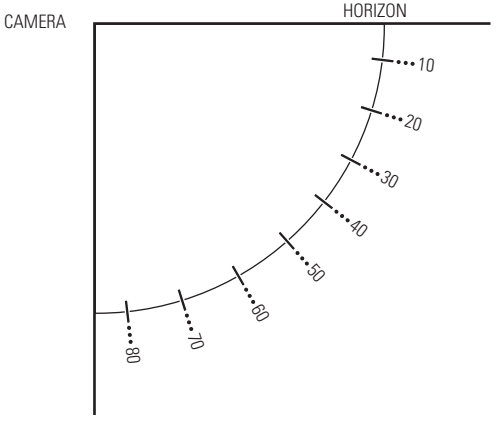
Blanks everything above a user-defined tilt angle. A blanked band will appear at the top of the screen. The following settings are available:

OFF (default) - No blanking
0 - Blanks area from horizon to 2° below horizon
-10 - Blanks area from horizon to 10° below horizon
-20 - Blanks area from horizon to 20° below horizon
-30 - Blanks area from horizon to 30° below horizon
-40 - Blanks area from horizon to 40° below horizon
-50 - Blanks area from horizon to 50° below horizon
-60 - Blanks area from horizon to 60° below horizon
-70 - Blanks area from horizon to 70° below horizon
-80 - Blanks area from horizon to 80° below horizon

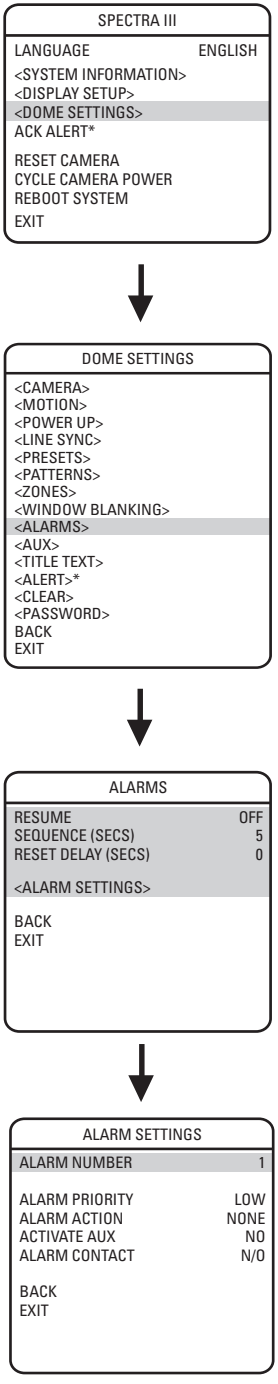
Blank All Below

Blanks everything below a user-defined tilt angle. A blanked circle will appear below the specified angle. The following settings are available:

OFF (default) - No blanking
0 - Blanks area from 2° to 92° below horizon
-10 - Blanks area from 10° to 92° below horizon
-20 - Blanks area from 20° to 92° below horizon
-30 - Blanks area from 30° to 92° below horizon
-40 - Blanks area from 40° to 92° below horizon
-50 - Blanks area from 50° to 92° below horizon
-60 - Blanks area from 60° to 92° below horizon
-70 - Blanks area from 70° to 92° below horizon
-80 - Blanks area from 80° to 92° below horizon



Alarms



The Spectra III SE dome has seven alarm inputs, which can be programmed as high, medium or low priority. When an alarm is received, an input signal to the dome triggers the user-defined action (go to preset, run pattern, etc.) programmed for the alarm.

There are three global alarm settings:

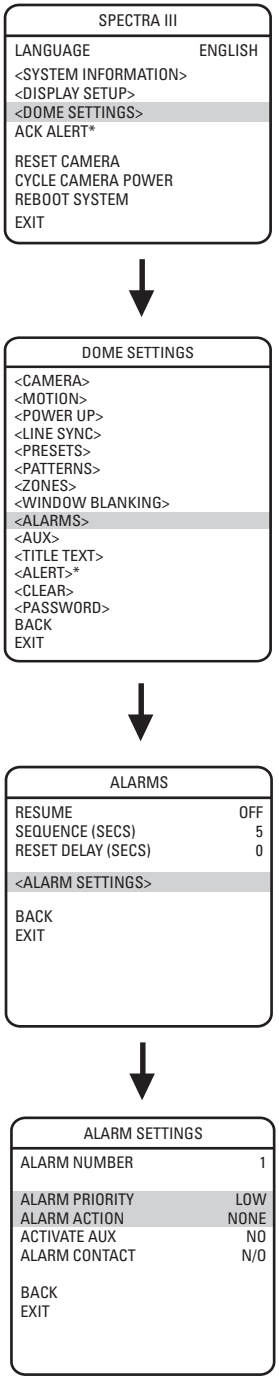
RESUME	This mode lets the dome resume its previous activity (scan, pattern, or previous position) after all alarms are cleared.
SEQUENCE	This is the time the dome will perform an alarm activity when more than one alarm of the same priority occurs at the same time.
RESET DELAY	This is the amount of time the dome considers the alarm to be active after it has physically cleared.

Use the following steps to program alarm settings.

1. Use the joystick to position the cursor beside ALARM SETTINGS. Press Iris Open.
2. Select the alarm number:
   a. Use the joystick to position the cursor beside ALARM NUMBER.
   b. Press Iris Open. The cursor moves to the right.
   c. Move the joystick up or down to view selections. Press Iris Open to enter selection.

(Continued on next page)

* This setting only applies to Pressurized Spectra III SE dome systems with software version 1.25 or higher.



* This setting only applies to Pressurized Spectra III SE dome systems with software version 1.25 or higher.

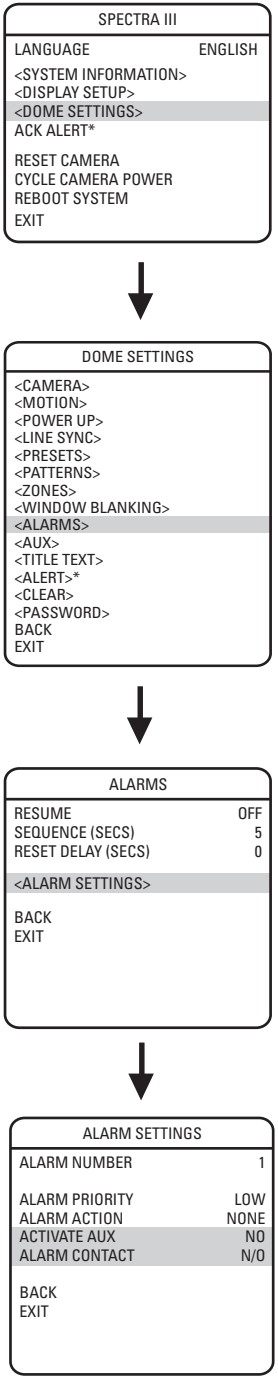
3. Select the alarm priority:
   a. Use the joystick to position the cursor beside ALARM PRIORITY.
   b. Press Iris Open. The cursor moves to the right.
   c. Move the joystick up or down to view the available selections. Available settings include HIGH, MEDIUM, and LOW (default). If multiple alarms with different priorities are active at the same time, the dome will only go to the alarms with the highest priority.
   d. Press Iris Open to enter selection.

HIGH	Alarm action takes highest priority and will override manual pan, tilt, and zoom control.
MEDIUM/LOW	Alarm action will not occur if an alarm occurs during manual pan, tilt, and zoom control.

4. Set the alarm action:
   a. Use the joystick to position the cursor beside ALARM ACTION.
   b. Press Iris Open. The cursor moves to the right.
   c. Move the joystick up or down to view the available selections. The following are the settings for alarm action:

NONE	No action when alarm is triggered.
PRESET	Dome goes to the preset that is the same as the alarm number. Preset 1 will go to Alarm 1.
PATTERN 1	Dome runs pattern 1 when alarm is triggered.
PATTERN 2	Dome runs pattern 2 when alarm is triggered.
PATTERN 3	Dome runs pattern 3 when alarm is triggered.
PATTERN 4	Dome runs pattern 4 when alarm is triggered.
AUTO SCAN	Dome starts auto scan operation when alarm is triggered.
RANDOM SCAN	Dome starts random scan operation when alarm is triggered.
FRAME SCAN	Dome starts frame scan operation when alarm is triggered.

   d. Press Iris Open to enter selection.



* This setting only applies to Pressurized Spectra III SE dome systems with software version 1.25 or higher.

5. Set the auxiliary to activate:
   a. Use the joystick to position the cursor beside ACTIVATE AUX.
   b. Press Iris Open. The cursor moves to the right.
   c. Move the joystick up or down to view the following available selections.

NO (default)	Not activated.
1	An alarm action will close AUX 1.
2	An alarm action will close AUX 2.

   d. Press Iris Open to enter selection.

NOTE: The AUX 1/AUX2 will stop when all the alarms assigned to it have cleared. If the AUX1/AUX is set up as momentary, then it will be activated each time a new alarm is activated.

6. Set the alarm contact:
   a. Use the joystick to position the cursor beside ALARM CONTACT.
   b. Press Iris Open. The cursor moves to the right.
   c. Move the joystick up or down to view the following available selections.

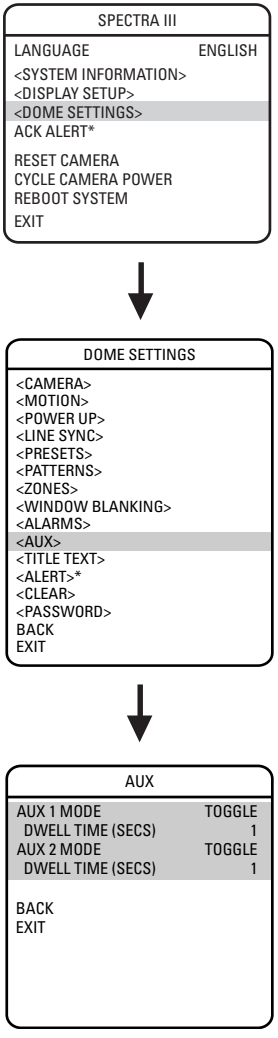
N/O (default)	Normally open
N/C	Normally closed

   d. Press Iris Open to enter selection.

Quick Programming Guide

(See page 11)

Aux



* This setting only applies to Pressurized Spectra III SE dome systems with software version 1.25 or higher.

An auxiliary output is a programmable signal from the dome back box that can trigger another device to operate. An auxiliary output is programmable to trigger from an alarm or from a controller.

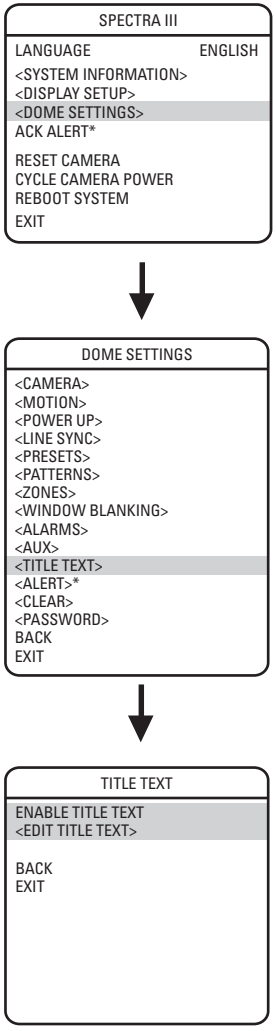
An AUX 1 command from the controller will activate the relay in the dome and operate the device that is connected to the relay. The output of AUX 1 can be connected to the alarm input of a system switch to activate automatic monitor switching and recording.

An AUX 2 command from the controller will place a ground at the output of AUX 2 to operate the device that is connected to it.

The following are the available AUX MODE settings:

TOGGLE (default)	Changes the state of the auxiliary output every time an AUX command is received from the controller.
LATCHING	Must receive an AUX ON/AUX OFF command from the controller to turn the auxiliary output on/off.
MOMENTARY	An AUX ON command from the controller turns the auxiliary output on for the programmed DWELL TIME. The auxiliary output will automatically turn off when the dwell time is finished.

Title Text

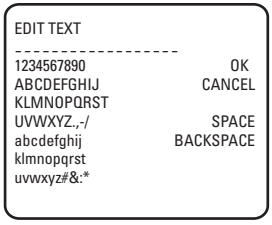


* This setting only applies to Pressurized Spectra III SE dome systems with software version 1.25 or higher.

Title text is the label used to identify the camera viewed on the monitor. Up to 20 characters can be used for a title.

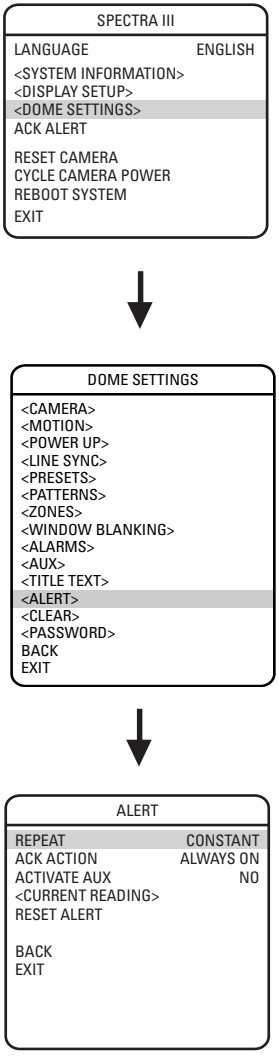
To edit the title text label, do the following:

1. Use the joystick to position the cursor beside EDIT TITLE TEXT.
2. Press Iris Open. The following appears on the monitor:



3. Use the joystick to position the cursor beside a character. Press Iris Open to select the character. To clear a character, position the cursor beside BACKSPACE and then press Iris Open.
4. When the title is completed, move the cursor to OK. Press Iris Open to return to the Title Text menu.
5. Enable the title text label by doing the following:
   a. Move the cursor beside ENABLE TITLE TEXT.
   b. Press Iris Open. The cursor moves to the right.
   c. Move the joystick up or down to view the selections. Select ON and then press Iris Open to enable the title text.

Alert



NOTE: The *Alert* section only applies to Pressurized Spectra III SE dome systems with software version 1.25 or higher. Spectra III SE systems that are not pressurized or pressurized systems that do not have dome drive software version 1.25 or higher will not display this menu item. Software version 1.25 or higher includes the software to monitor temperature, pressure, and dew point for Pressurized Spectra III SE systems.

Sensors strategically placed inside the pressurized dome system continually monitor pressure, temperature, and dew point. If internal conditions reach unacceptable levels, an alert message appears on the screen describing the alert condition. Example: If pressure drops below 1 psig, "LOW PRESSURE" is displayed on the monitor.

The following system conditions will trigger an alert message:

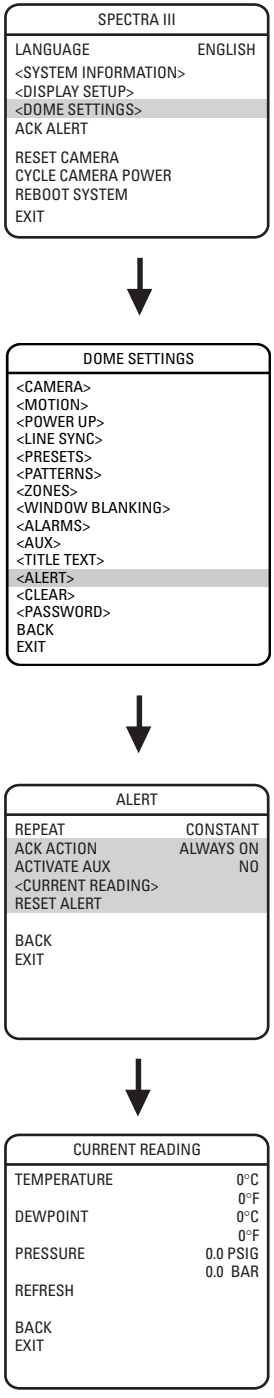
System Condition	Alert Message
Temperature is above 140°F (60°C)	HIGH TEMPERATURE
Temperature is below -40°F (-40°C).	LOW TEMPERATURE
Pressure is above 11 PSIG.	HIGH PRESSURE
Pressure is below 1 PSIG	LOW PRESSURE
The difference between the temperature and the dew point is less than or equal to 3°C.	DEW POINT (HIGH HUMIDITY)

The alert message will be repeatedly displayed until the system controller acknowledges the alert condition by selecting ACK ALERT in the main menu. Once acknowledged, the alert message changes to the programmed acknowledge action (ACK ACTION). If the alert condition remains active after a period of time, the alert message reappears on the monitor, restarting the alert message cycle. This cycle will continue to repeat until the alert condition is resolved.

REPEAT

This setting programs how often an alert message is repeatedly displayed until the system controller acknowledges the alert condition. The following are the settings for REPEAT:

CONSTANT	The alert message is continuously displayed on the monitor until acknowledged.
15 MIN	The alert message is displayed every 15 minutes for a 15-second duration until acknowledged.
30 MIN	The alert message is displayed every 30 minutes for a 15-second duration until acknowledged.
60 MIN	The alert message is displayed every 60 minutes for a 15-second duration until acknowledged.



ACK ACTION

Acknowledge action programs the alert label behavior after the alert condition has been acknowledged. The following settings are available for ACK ACTION:

ALWAYS ON	The alert label is displayed until alert conditions are cleared.
OFF 8 HRS	The alert label is turned off for 8 hours. Label returns after 8 hours if the alert condition persists.
OFF 24 HRS	The alert label is turned off for 24 hours. Label returns after 24 hours if the alert condition persists.
OFF 48 HRS	The alert label is turned off for 48 hours. Label returns after 48 hours if the alert condition persists.

ACTIVATE AUX

This setting activates an auxiliary when an alert condition exists. ACTIVATE AUX settings include the following:

NO (default)	Not activated.
1	An alert condition will close AUX 1.
2	An alert condition will close AUX 2.

CURRENT READING

The Current Reading menu displays the existing status of temperature, pressure, and dew point inside the dome system. An arrow displayed to the left of a menu item denotes that an alert condition exists. An up arrow indicates the reading is over the threshold. A down arrow indicates the reading is below the threshold.

The high temperature alert occurs if the temperature is above 140°F (60°C).

The low temperature alert occurs if the temperature is below -40°F (-40°C).

The high pressure alert occurs if the pressure is above 11 PSIG.

The low pressure alert occurs if the pressure is below 1 PSIG.

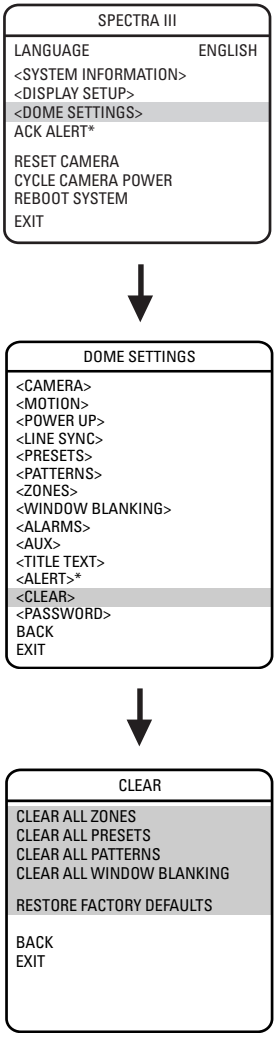
The dew point (high humidity) alert occurs if the difference between the temperature and the dew point is less than or equal to 3°C.

NOTE: The normal operating temperature inside the unit will be greater than the temperature outside the back box due to the heat emitted by the system's electronics.

RESET ALERT

Reset alert clears the alert condition and removes the alert label from the monitor. The system automatically checks internal conditions 60 seconds after reset. If conditions are still unacceptable, the alert label reappears on the screen indicating further corrective action is required.

Clear



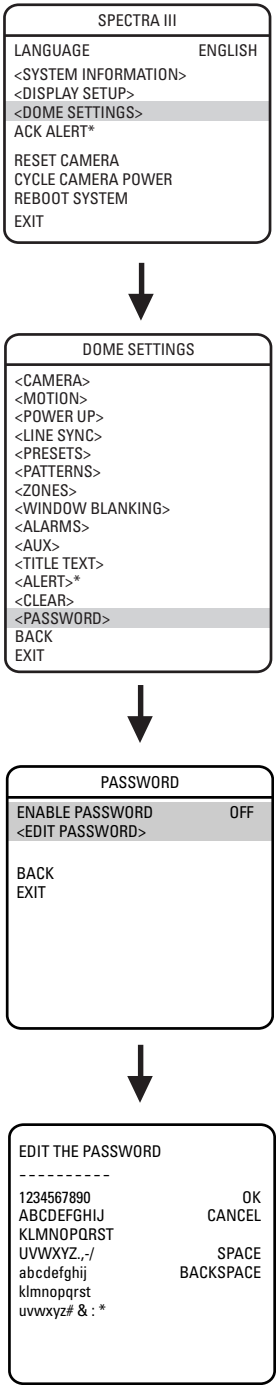
* This setting only applies to Pressurized Spectra III SE dome systems with software version 1.25 or higher.

Use this setting to clear user-defined settings or return the dome to factory default settings.

The following are the available CLEAR settings:

ALL ZONES	Clears all zones. To clear a single zone, refer to the *Zones* section.
ALL PRESETS	Clears all presets. To clear a single preset, refer to the *Presets* section.
ALL PATTERNS	Clears all patterns. To clear a single patterns, refer to the *Patterns* section.
ALL WINDOW BLANKING	Clears all blanked windows. To clear a single blanked window, refer to the *Window Blanking* section.
RESTORE FACTORY DEFAULTS	Restores all camera settings to factory default settings.

Password



Spectra III SE features password protection to prevent unauthorized changes to the dome settings. An operator can open the System Information and Display Setup Screens, but cannot access any of the Dome Settings menus.

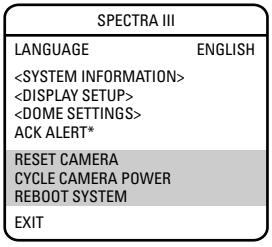
Controller/keyboard commands cannot override password-protected settings. If a keyboard is used to set a preset, pattern, or zone, the Enter Password screen appears on the monitor. The password must be entered before programming can continue.

At least one character must be entered to create a valid password.

Quick Programming Guide

(See page 11)

RESET, CYCLE POWER, REBOOT



* This setting only applies to Pressurized Spectra III SE dome systems with software version 1.25 or higher.

RESET CAMERA

Use this function to reset all camera settings to factory default parameters.

CYCLE CAMERA POWER

If the camera is not operating or if you lose camera control, cycle camera power. Cycling camera power resets the camera but does not change any saved camera settings.

REBOOT SYSTEM

Reboot the system if it is not operating or if there is no control. Rebooting the system will cycle dome and camera power without changing programmed dome settings.

SOFTWARE/LANGUAGE FILE UPLOAD

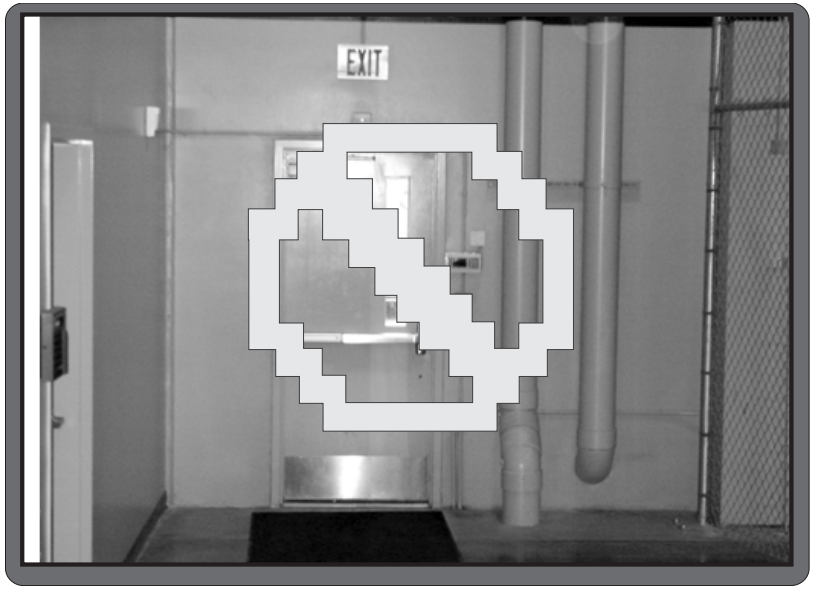
The RJ-45 data port of the dome drive allows access for on-site setup, testing, and uploading of revised operating software and language files. A Pelco field service tool is required to perform these operations. Field service tools include Pelco's remote monitor kit (IPS-RMK), remote data port box (IPS-RDPE-2), and remote monitor cable (IPS-CABLE).

For instructions on how to upload revised operating software and language files refer to the Installation/Operation manual supplied with the field service tool.

NOTE: Only perform software uploads when necessary. Software uploads do not need to be performed if the dome system is operating properly.

UPLOAD ICON

During a software/language file upload, an icon will appear on the monitor to indicate data is being transferred to the Spectra dome system (refer to the figure below). The default setting for data transmission is 115.2 KB per second. Noisy and long-run connections will slow the transmission rate.



Upload Icon

SPECIFICATIONS

DD53M22

Signal Format	NTSC
Scanning System	2:1 Interlace
Image Sensor	1/4-inch CCD
Effective Pixels	768 (H) X 494 (V)
Horizontal Resolution	>500 TV lines
Lens	F1.6 (f=4~88 mm optical, 22X optical zoom, 12X digital zoom)
Zoom Speed (optical range)	2.4/3.9/6.3 seconds
Horizontal Angle of View	47° at 4 mm wide zoom; 2.2° at 88 mm telephoto zoom
Focus	Automatic with manual override
Maximum Sensitivity at 35 IRE	0.005 lux at 1/2 sec. shutter speed
Sync System	Internal/AC line lock, phase adjustable via remote control, V-sync
Shutter Speed	Automatic (electronic iris)/manual
	1/2 ~ 1/30,000
Iris Control	Automatic iris control with manual override
Gain Control	Automatic/off
Video Output	1 Vp-p, 75 ohms
Video Signal to Noise	>48 dB

DD53M22-X

Signal Format	PAL
Scanning System	2:1 Interlace
Image Sensor	1/4-inch Ex-View CCD
Effective Pixels	752 (H) X 582 (V)
Horizontal Resolution	>500 TV lines
Lens	F1.6 (f=4~88 mm optical, 22X optical zoom, 12X digital zoom)
Zoom Speed (optical range)	2.4/3.9/6.3 seconds
Horizontal Angle of View	47° at 4 mm wide zoom; 2.2° at 88 mm telephoto zoom
Focus	Automatic with manual override
Maximum Sensitivity at 35 IRE	0.005 lux at 1/1.5 sec. shutter speed
Sync System	Internal/AC line lock, phase adjustable via remote control, V-sync
Shutter Speed	Automatic (electronic iris)/manual
	1/1.5 ~ 1/30,000
Iris Control	Automatic iris control with manual override
Gain Control	Automatic/off
Video Output	1 Vp-p, 75 ohms
Video Signal to Noise	>48 dB

REGULATORY NOTICES

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

RADIO AND TELEVISION INTERFERENCE

This equipment has been tested and found to comply with the limits of a Class B digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However there is no guarantee that the interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

You may also find helpful the following booklet, prepared by the FCC: "How to Identify and Resolve Radio-TV Interference Problems." This booklet is available from the U.S. Government Printing Office, Washington D.C. 20402.

Changes and Modifications not expressly approved by the manufacturer or registrant of this equipment can void your authority to operate this equipment under Federal Communications Commission's rules.

REVISION HISTORY

Manual #	Date	Comments
C2443M	2/02	Original version.
C2443M-A	11/02	Revised Quick Start Guide.
C2443M-B	2/03	Manual revised to include features of software version 1.2.
C2443M-C	1/04	Added alert feature. Updated menus and instructions.
C2443M-D	11/05	Made manual changes for Spectra III software version 1.28 per ECO 05-11592. Added information to access preset 95 from the WS5050 and VCD5000.

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